



Memorandum

TO: Joon Park
Napleton Automotive Group

FROM: Stephen B. Corcoran, P.E., PTOE
Director of Traffic Engineering

DATE: October 11, 2018

RE: Napleton Repair Facility
3650 Wilke Road
Arlington Heights, Illinois

This memorandum summarizes a traffic evaluation for the redevelopment of the former Suburban Press building at 3650 Wilke Road in Arlington Heights, Illinois. Napleton Automotive Group plans to redevelop the building into an automotive repair facility. Parking is provided by 73 spaces including 3 accessible spaces. The existing driveways on Wilke Road will remain with a full access drive and a right-out only drive. The purpose of the study was estimate the traffic generated by the changes in the site plan

Site Location

The subject site currently has a 15,324 square foot building that was used by the Suburban Press as a printing facility. Route 53 is located to the south and west of the site. A hotel is located immediately to the north and a car dealership is located to the east across Wilke Road.

Wilke Road is a north-south secondary arterial extending from Lake Cook Road across Dundee Road south to Palatine Road. By the site it has two lanes in each direction. Traffic signals are located at Lake Cook Road, Dundee Road, and the Lexus dealership entrance. It is under the jurisdiction of the Village of Arlington Heights with a 30 mph posted speed limit.

The current site has two access drives on Wilke Road. A full access drive on the north property line which it shares with the Courtyard by Marriott hotel. It has one inbound lane and one outbound lane under stop sign control. The second driveway is approximately 270 feet to the south and only allows right-turns out of the site.

Site Trip Generation

Suburban Press previously occupied the building and used it as a printing facility with approximately 15 employees. It printed and shipped newspapers.

Napleton Automotive Group proposes to redevelop the building as an automotive repair facility to expand capacity at their existing Chrysler Dodge Jeep Ram dealership on Dundee Road. The 15,342 square foot building will remodeled with 10 service bays, a wash station, parts storage, and office space. Twelve to fifteen employees are expected to work there. Seventy three parking spaces are provided for employees and the storage of vehicles that are awaiting repair/parts or completed vehicles. Customers will drop-off and pick-up cars at the dealership. Employees will drive vehicles between the building and the dealership.

The site traffic generated by the prior and proposed uses were estimated from data in the Institute of Transportation Engineer's Trip Generation 10th Ed. manual which contains trip generation surveys of similar land uses. The resulting site traffic volumes are shown in **Table 1**. Please note that the trip generation estimates for the repair facility are based on retail repair facilities where customers drive directly to the repair center. They may wait for the service, get a loaner, or be picked-up/dropped-off by a friend. This generates more traffic than the proposed facility. The customers will use the dealership for drop-off and pick-up. Dealership staff will likely drive a finished car to the dealership and drive back in another car requiring repair. This cuts down the overall number of trips.

**Table 1
 Trip Generation Comparison**

| Use | Size | Morning Peak | | | Evening Peak | | |
|--|----------------|--------------|------------|------------|--------------|------------|------------|
| | | In | Out | Total | In | Out | Total |
| Suburban Press - Prior ⁽¹⁾ | 15,423 sq. ft. | 9 | 2 | 11 | 1 | 9 | 10 |
| Napleton Repair -Proposed ⁽²⁾ | | 22 | 12 | 34 | 24 | 25 | 49 |
| Net Increase in Trips | | +13 | +10 | +23 | +23 | +16 | +39 |

(1) ITE Land Use Code 110 – Light Industrial
 (2) ITE Land Use Code 942 – Automobile Care Center

Trip Assignment

With traffic signals at Lake Cook Road and Dundee Road, employee trips will be arriving from the north or south on Wilke Road. Traffic to and from the dealership on Dundee Road will turn right out of the site to go south to the dealership and left into the site when returning from the dealership. Inbound or outbound turning movements to and from the site will be one vehicle every two to five minutes.

Traffic Impact

Assuming all the inbound traffic originates from the dealership, the westbound right turn lane on Dundee Road would have 22 to 24 additional vehicles an hour. Outbound traffic to the dealership would add 12 to 25 vehicles per hour to the southbound left-turn lane on Wilke Road. The additional volumes will not materially impact the traffic operation of those movements.

Wilke Road is a four lane road and can easily accommodate the additional traffic volumes.

Conclusions

The preceding traffic analysis analyzed the redevelopment of Suburban Press building into a Napleton repair facility and developed the following conclusions:

- The repair facility will not adversely impact the level-of-service of study area intersections.
- The two existing driveways access driveway will adequately serve the site.